JOURNAL OF ALLOYS AND COMPOUNDS VOLUME 204, NUMBERS 1–2, FEBRUARY 1994

Contents

Letters

Equivalence of ball milling and thermal treatment for phase transitions in the Al_2O_3 system L1
A. Tonejc, C. Kosanović, M. Stubićar, A.M. Tonejc, B. Subotić and I. Šmit (Zagreb, Croatia)

New quaternary metal hydrides with $CaMgNiH_4$-type structure L5
B. Huang, K. Yvon (Geneva, Switzerland) and P. Fischer (Villigen, Switzerland)

Crystal structure of the compounds $Ce_3Pd_{20}Ge_6$ and $Ce_3Pd_{20}Si_6$. L9
A.V. Gribanov, Yu.D. Seropegin (Moscow, Russian Federation) and O.I. Bodak (Lviv, Ukraine)

Crystallization of $PbMo_6S_8$ in amorphous thin films. L13
I.M. Schewe-Miller, F. Li, M. Columbia, G.L. Schrader and H. Fritz Franzen (Ames, IA, USA)

ZrNbP and HfNbP, new phases with the Co_2Si structure. L17
G.A. Marking and H.F. Franzen (Ames, IA, USA)

Development of microstructure of the disproportionated material during HDDR processes in a $Nd_{16}Fe_{76}B_8$ alloy L21
O. Gutfleisch, N. Martinez, M. Verdier and I.R. Harris (Birmingham, UK)

Crystal structure of cerium platinum aluminide, CePtAl L25
B. Xue and H. Schwer (Zürich, Switzerland)

Regular Papers

Electrochemical reduction of uranium oxide in molten fluoride mixture 1
T. Shimada, N. Tedzuka, Y. Shimizu and M. Miyake (Yamadaoka Suita, Japan)

Crystal and molecular structure of tin bisphthalocyanine at 300 K (monoclinic form) 5
J. Janczak and R. Kubiak (Wrocław, Poland)

The crystal structure of $NdFe_{1-x}Sb_2$ and isotypic compounds $RE(Fe,Co)_{1-x}Sb_2$, RE ≡ La, Ce, Pr, Sm and Gd 13
A. Leithe-Jasper and P. Rogl (Vienna, Austria)

On the chemical composition analysis of the icosahedral phase in an Mg–Zn–Y–Zr ingot. 17
Y.L. Tang, D.S. Zhao (Zhengzhou, China), Z.P. Luo (Beijing, China), N.F. Shen (Zhengzhou, China) and S.Q. Zhang (Beijing, China)

Liquid phase reactions in the system graphite–potassium–caesium–mercury 21
I.A. Udod and H.B. Orman (Moscow, Russian Federation)

Formation and stability of amorphous Zn–Ti alloy by mechanical alloying 27
H. Zhang (Beijing, China), Y. Su, L. Wang, L. Wu, Z. Tan (Hunan, China) and B. Zhang (Beijing, China)

Synthesis of $BaTiO_3$ nanocrystals by stearic acid gel method 33
X. Wang, C. Zhao, Z. Wang, F. Wu and M. Zhao (Changchun, China)

Dislocation-assisted complex scattering mobility of electrons in plastically deformed n-GaAs single crystals 37
C. Veerender, M. Nagabhushanam and V. Haribabu (Hyderabad, India)

Crystallization of $Ni_{78}B_{14}Si_8$ studied by adiabatic calorimetry. Thermodynamic and kinetic aspects 47
S. Stølen (Oslo, Norway)

UFe_6Ge_6: a new ternary magnetic compound. 59
A.P. Gonçalves, J.C. Waerenborgh, G. Bonfait (Sacavém, Portugal), A. Amaro, M.M. Godinho (Lisboa, Portugal), M. Almeida (Sacavém, Portugal) and J.C. Spirlet (Karlsruhe, Germany)

New hydride formation of $MoSi_2$-type intermetallic compounds at hydrogen pressures up to 2000 atm 65
S.N. Klyamkin, K.N. Semenenko and I.A. Kinas (Moscow, Russian Federation)

Modification of the hydriding kinetics of U–0.2wt.%V alloy using ion implantations. 71
D. Crusset, F. Bernard, E. Sciora and N. Gérard (Dijon, France)

Observations related to hydrogen in powder and single crystal samples of $YBa_2Cu_3O_{7-\delta}$. 79
D. Porath, A. Grayevsky, N. Kaplan, D. Shaltiel, U. Yaron (Jerusalem, Israel) and E. Walker (Geneva, Switzerland)

Elsevier Sequoia

The scandium–iridium phase diagram 83
V.N. Yeremenko, V.G. Khorujaya and P.S. Martsenyuk (Kiev, Ukraine)

Magnetic properties and vibrational study of $KLn(CrO_4)_2$ (Ln≡Y, Dy–Lu) 89
I. Bueno, C. Parada, R. Sáez Puche (Madrid, Spain) and E.J. Baran (La Plata, Argentina)

Raman, electronic Raman, infrared absorption and visible luminescence spectrum of $Cs_2NaEuCl_6$ 93
P.A. Tanner and Y.-L. Liu (Kowloon, Hong Kong)

Compounds of cerium, titanium and oxygen 101
C.E. Bamberger, T.J. Haverlock (Oak Ridge, TN, USA), S.S. Shoup, O.C. Kopp and N.A. Stump (Knoxville, TN, USA)

New oxides of the filled-Ti_2Ni type structure 109
R. Mackay, G.J. Miller and H.F. Franzen (Ames, IA, USA)

High-temperature oxidation behaviour in the Zr–Al system 119
M. Paljević (Zagreb, Croatia)

Study of $Sr_{2-x}Pb_xP_2O_7$ ($0 \leqslant x \leqslant 2$) solid solutions and single-crystal structure of $Sr_{1.34}Pb_{0.66}P_2O_7$ 127
A. Elmarzouki, A. Boukhari (Rabat, Morocco), E.M. Holt (Stillwater, OK, USA) and A. Berrada (Rabat, Morocco)

Oxydation des alliages TiZr sous air et sous oxygène
II. Rôle de la composition des alliages sur l'évolution cinétique et morphologique du titane au zirconium 133
I. Halley-Demoulin, D. Ciosmak and M. Lallemant (Dijon, France)

Structural determination of a new lamellar tellurosilicate, $AlSiTe_3$. 145
E. Sandre, V. Carteaux, A.M. Marie and G. Ouvrard (Nantes, France)

Mechanosynthesis of iron carbides at composition $Fe_{75}C_{25}$: modeling of the process kinetics 151
F. Miani, P. Matteazzi and D. Basset (Udine, Italy)

Thermodynamic study of the Pd–Hf system by high-temperature calorimetry. 157
N. Selhaoui, J.C. Gachon and J. Hertz (B.P. Vandoeuvre-Les-Nancy, France)

New developments in the field of energy transfer by means of monomode microwaves for various oxides and hydroxides 165
M. Gasgnier (Meudon, France), A. Loupy, A. Petit (Orsay, France) and H. Jullien (Thiais, France)

Effect of atomic order–disorder on ^{57}Fe hyperfine structure in $Fe_{64}Pt_{36}$ alloy. 173
T. Goto, H. Utsugi (Tagajo, Japan) and K. Watanabe (Sendai, Japan)

Aluminum titanium alloy bromide catalytic effects in the cracking of nonane and decane 179
D.-Y. Yan and D.-Y. Song (Tokyo, Japan)

Enthalpies of mixing in the $DyCl_3$–NaCl, $DyCl_3$–KCl and $DyCl_3$–$PrCl_3$ liquid systems 185
M. Gaune-Escard (Marseille, France), L. Rycerz and A. Bogacz (Wroclaw, Poland)

Entropies of phase transitions in the M_3LnCl_6 compounds (M≡K, Rb, Cs; Ln≡La, Ce, Pr, Nd) and K_2LaCl_5. 189
M. Gaune-Escard (Marseille, France), L. Rycerz, W. Szczepaniak and A. Bogacz (Wroclaw, Poland)

Enthalpies of phase transition in the lanthanide chlorides $LaCl_3$, $CeCl_3$, $PrCl_3$, $NdCl_3$, $GdCl_3$, $DyCl_3$, $ErCl_3$ and $TmCl_3$ 193
M. Gaune-Escard (Marseille, France), L. Rycerz, W. Szczepaniak and A. Bogacz (Wroclaw, Poland)

On the insertion of carbon atoms in B_{12} icosahedra and the structural ánisotropy of β-rhombohedral boron and boron carbide 197
H. Werheit, U. Kuhlmann (Duisburg, Germany) and T. Lundström (Uppsala, Sweden)

Glass formation in the system BaS–Ga_2S_3–GeS_2 and the structure of $Ba_{2.7}Ga_{5.4}Ge_{3.6}S_{18}$. 209
H. Haeuseler and Ch. Schmidt (Siegen, Germany)

$Ta_{1.09}Fe_{2.39}Te_4$, a new non-stoichiometric ternary tantalum telluride 215
J. Neuhausen and W. Tremel (Mainz, Germany)

Measurement of exoelectrons from palladium and palladium deuteride with gas proportional counter. 223
S. Fukada, S. Furuya, T. Sakae and N. Mitsuishi (Fukuoka, Japan)

Synthese und Kristallstruktur von $CuEuMo_2O_8$ und $CuHoMo_2O_8$. 231
Hk. Müller-Buschbaum and H. Szillat (Kiel, Deutschland)

Die Kristallstrukturen von α-$CuGdW_2O_8$ und $CuNdMo_2O_8$. 237
Hk. Müller-Buschbaum and O. Sedello (Kiel, Deutschland)

Luminescence of calcium bismuth vanadate ($CaBiVO_5$) 243
Z. Pei, A. Van Dijken, A. Vink and G. Blasse (Utrecht, Netherlands)

Magnetic properties of $U(Co_xAl_{1-x})_3$ compounds 247
I. Lupşa, P. Lucaci and E. Burzo (Cluj-Napoca, Romania)

Metallurgical and physical study of praseodymium disilicides and digermanides 251
N. Boutarek (St. Martin d'Hères, France), J. Pierre, B. Lambert-Andron (Grenoble, France), Ph. L'Heritier and R. Madar (St. Martin d'Hères, France)

Author Index 261

Subject Index 263